

ABSTRACT

The current method and apparatus provides a novel approach to manage the power consumption of a high speed I/O interface by selectively turning off non-essential portion of the interface. Here only part of the interface is powered off as compared to the whole interface being turned off and by keeping part of the interface on, the current method maintains the interface operation state. Thus, from the upper layers (protocol/system) perspective, the interface is always "on". Furthermore, the current method allows a link to scale back for just enough bandwidth to maintain the link during idle (by turning off the non-essential parts). Only a small portion of the link bandwidth is required to maintain the link during idle (only credits and acks are needed to pass back and forth) and therefore providing for greater power efficiency.